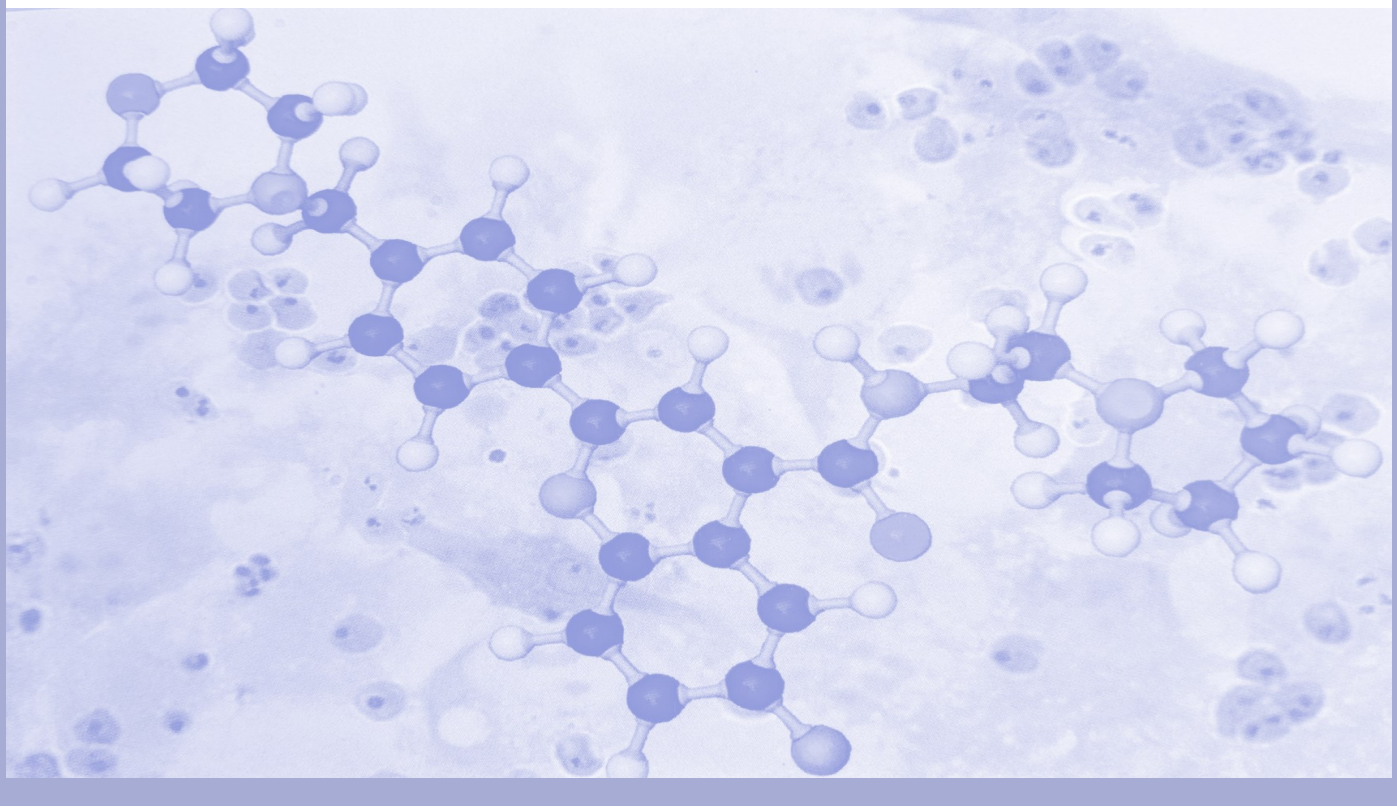
wellcome centre anti-infectives research

Setting our sights on **infectious diseases**

12-15 May 2019, University of Dundee

Speaker Biographies



Dr Bree Aldridge is an Assistant Professor in the Department of Molecular Biology and Microbiology and Department of Biomedical Engineering at Tufts University. She specializes in combining live-cell microscopy and mathematical modeling to create intuitive descriptions of complex cell biology. The Aldridge lab seeks to bring a quantitative framework to understand tuberculosis infection and drug response at single-cell resolution. She is an Alfred P. Sloan Research Fellow and is the recipient of an NIH Director's New Innovator Award. Her lab website is: https://sites.tufts.edu/aldridgelab/

Dr Clifton E. Barry III received his Ph.D. in organic and bio-organic chemistry in 1989 from Cornell University, studying the biosynthesis of complex natural products. Following postdoctoral research in the chemistry department at Johns Hopkins University (1989 to 1992), Dr Barry joined the Intramural Research Program of the National Institute of Allergy and Infectious Diseases' (NIAID's) Rocky Mountain Laboratories in Hamilton, Montana. In 1998, he was tenured as chief of the Tuberculosis Research Section (TRS) in the Laboratory of Clinical Infectious Diseases of NIAID.

TRS projects focus on understanding the scientific issues that facilitate the development of drugs that will make a genuine difference in the outcome for TB patients globally. TRS scientists are highly interactive worldwide in this endeavour and as a result of our outstanding collaborations TRS is the most highly cited TB research group in the world according to Thomson Reuters.

In addition to TRS laboratories in Bethesda TRS works closely with the International Tuberculosis Research Center located in Masan, South Korea; with Chinese colleagues at the Henan Provincial Chest Hospital in Zhengzhou, China; and with colleagues at Stellenbosch University (SUN) and the University of Cape Town (UCT) in South Africa. Dr Barry holds an honorary professorship at UCT and has a growing laboratory in the Institute for Infectious Disease and Molecular Medicine.

Dr Frederick S. Buckner is a professor of Infectious Diseases in the University of Washington Department of Medicine. He runs a research lab focusing on drug discovery for neglected tropical diseases, including Chagas disease. His research involves many aspects of preclinical drug discovery including compound screening, animal efficacy models, pharmacology, and toxicology. Dr. Buckner also has a practice as an Infectious Diseases specialist at UW Medical Center.

Professor Sarah Cook Sarah Cook is a curator, writer and researcher based in Scotland. She is Professor of Museum Studies in Information Studies at the University of Glasgow. She is editor of the book INFORMATION (Documents of Contemporary Art, Whitechapel and MIT Press, 2016) and co-author (with Beryl Graham) of Rethinking Curating: Art After New Media (MIT Press, 2010; Chinese edition 2016). Sarah is one of the curators behind Scotland's only digital arts festival NEoN Digital Arts and founder/curator of LifeSpace Science Art Research Gallery in the School of Life Sciences, University of Dundee (as part of her role as Dundee Fellow at Duncan of Jordanstone College of Art & Design, 2013-2018). Together with Beryl Graham, Sarah co-founded CRUMB, the longstanding online resource and network for curators of new media art, hosting workshops and courses worldwide.

Sarah has curated and co-curated international exhibitions of contemporary art and new media art including most recently: The Gig Is Up (2016) at V2_Institute for Unstable Media in Rotterdam; Right Here, Right Now (2015) at The Lowry in Salford; Alt-w (2014) at the Royal Scottish Academy, SSA Annual Exhibition in Edinburgh; Not even the sky: Thomson & Craighead (2013) for MEWO Kunsthalle in Memmingen; Biomediations (2013) for Transitio_MX_05, the festival of electronic arts and video in Mexico City.

Sarah co-chaired Rewire, the Fourth International Conference on the histories of media art, science and technology with FACT in Liverpool (2011) and was a founding member on the advisory board of the Journal of Curatorial Studies.

She holds a Masters degree from CCS at Bard, and a PhD from the University of Sunderland (2004) where she was employed until 2013, undertaking research, supervising PhD students and developing and teaching on the MA Curating course.

Dr Manu De Ryker is Head of Translational Parasitology and Portfolio Leader for Kinetoplastid Drug Discovery at the Drug Discovery Unit (DDU), University of Dundee. Manu heads the team that develop and run cell-based assays for the parasitology programmes in the DDU. The team has successfully built extensive screening cascades that comprise high-throughput primary screening assays as well as advanced secondary assays with high physiological relevance. These cascades have proven pivotal to rapidly identify new compounds with the best chance of demonstrating in vivo efficacy.

As Portfolio Leader for Kinetoplastid Drug Discovery Manu leads a substantial drug discovery programme focused on delivering new pre-clinical candidates for visceral leishmaniasis and Chagas disease. In collaboration with GSK this programme has developed one of the first new pre-clinical candidates for visceral leishmaniasis. Manu works closely with biologists, chemists and pharmacologists to deliver further candidates for these neglected tropical diseases.

Manu's background is in biotechnology engineering and molecular genetics. His main interest is in applied biology for drug discovery and, in particular, understanding and improving the relevance of *in vitro* cell-based assays. He holds a Master of Science degree in engineering (biotechnology) from the University of Ghent, Belgium and a PhD in molecular genetics from the University of Cincinnati, Ohio, USA.

Dr Nathalie Gobeau is Director, Pharmacometrics, Research & Development at Medicines for Malaria Venture. Her role is to develop and apply pharmacokinetic (PK) and pharmacodynamic (PD) models, which integrate in vitro and in vivo data to help with the selection of compounds and with the translation of preclinical information to humans, with the ultimate goal of accelerating delivery of antimalarial drugs to patients.

Nathalie joined MMV in 2015. She has extensive experience in modelling, from modelling smoke movement from fires in tunnels to modelling the fate of drugs in the body. For the first eight years of her career, she worked in the public sector, in the area of health and safety at work, first for the UK Health and Safety Laboratory, then for the French Institute INERIS (Institut National de l'Environnement Industriel et des Risques). Following this, she moved to the pharmaceutical industry. Nathalie worked for UCB Pharma in Belgium for three and a half years in the Modelling Team, initially assisting with clinical paediatric development, then helping to design the First In Human studies. Most recently, she spent five years at Novartis as a PBPK modeler, helping teams to understand the pharmacokinetics of discovery compounds from in silico, in vitro and initial PK data in animals.

Nathalie obtained an Engineering Degree in 1994 and a PhD in fluid mechanics in 1998 from the Ecole Centrale de Lyon in France.

Professor Paul Herrling was Head of Corporate Research at Novartis. He was also Chairman of the Board of the Novartis Institute for Tropical Diseases in Singapore, an endeavor to advance medical research in the area of tropical infectious diseases, which historically have received little drug-research funding. Prior to this, Paul Herrling was Head of Global Research at Novartis Pharma and a member of the Pharma Executive Committee (PEC).

Paul Herrling is also Professor of Drug Discovery Science at the University of Basel, Switzerland. He obtained his doctorate in 1975 at the University of Zurich and was a post-doctorate fellow at the Neuropsychiatric Institute at the University of California, Los Angeles (UCLA).

In addition to a number of scientific editing activities, he serves on several boards, most notably: he is on the Scientific Advisory Committee of the Drugs for Neglected Diseases initiative (DNDi) in Geneva, the Scientific Advisory Board for H3D Cape Town University, an advisor to the Wellcome Trust and a member of the Board Novartis Venture Fund.

Dr Jennifer Hermann, studied chemistry at the Technical University Kaiserslautern and received her diploma in 2007. She worked as visiting scholar at Drug Discovery Ltd. in Glasgow before she moved to Saarland University, where she received her PhD under the supervision of Rolf Müller in 2012. Jennifer continued with post-doctoral research at the Helmholtz Institute for Pharmaceutical Research Saarland and in 2015, worked as visiting scientist at the Luxembourg Centre for Systems Biomedicine on zebrafish assays for drug screening. Jennifer's main research interests are the characterization of newly isolated anti-infective natural products and their further development in terms of early preclinical studies, including mode-of-action and mode-of-resistance studies of novel antibiotics and their pharmacological characterization.

Professor William Hope (BMBS, FRACP, FRCPA, PhD) is Professor of Therapeutics and Infectious Diseases at the University of Liverpool in the UK. Professor Hope is a Fellow of the Royal Australasian College of Physicians and a Fellow of the Royal College of Pathologists of Australasia.

Professor Hope qualified in Medicine in 1991, before undertaking specialist training in infectious diseases and clinical microbiology. He completed his PhD in antimicrobial pharmacology in 2006, while undertaking fellowships at the University of Manchester, UK, and the National Institutes of Health, Bethesda, USA. He was an NIHR Clinician Scientist and this award focussed on individualised antimicrobial therapy.

Professor Hope leads the newly formed Centre for Antimicrobial Pharmacodynamics, which provides the pharmacodynamic packages for new antibiotics. Areas of special interest and research are antimicrobial pharmacokinetics and pharmacodynamics, antimicrobial drug development and individualisation of antimicrobial therapy. He is a Fellow of the American Academy of Microbiology and European Society of Clinical Microbiology and Infectious Diseases.

Dr Jennifer Keiser, Associate Professor, is Head of Helminth Drug Development at Swiss Tropical and Public Health Institute. Her responsibilities include: Maintenance of large range of helminth life cycles (e.g. Necator americanus); In vitro and in vivo evaluation of biological activities of compounds; Development of novel in vitro helminth assays to study drug sensitivities; Pharmacokinetic studies in rodents, large animals and humans; Bioanalytical method development; Clinical trials in helminthiasis endemic countries.

Jennifer graduated from University of Basel in 1995 with MSc in Pharmacy. In 1999 she obtained a PhD in Zoology from the Swiss Tropical Institute, Department of Medical Parasitology, University of Basel. Her post-doctoral research in Demography and Epidemiology was carried out at the Office of Population Research, Princeton University from 2000-2003.

Maria Jose Lafuente obtained her BS degree in Chemistry at the Universidad Complutense of Madrid in 1992 and received her PhD in Biochemistry and Molecular Biology from the Universidad Autónoma of Madrid in 1998. She devoted her PhD to the study of yeast glucose metabolism at the Biomedical Research Institute (IIB-CSIC) and then moved to the Human Genetics Unit (MRC) as a postdoctoral fellow where focused her research on the study of human dopamine receptors and their involvement in schizophrenia. In 2000, she joined at the Molecular Biology Center (CBM-CSIC) where she pursued her research on inflammation and cancer processes, exploring proteins involved in signalling and apoptosis taking advantage of transgenic and gene knockout mouse models of human disease. She joined Diseases of the Developing World (DDW) center of GSK R&D at Tres Cantos in 2003 and since then, she has lead and carried out different projects in the drug discovery area. She has participated actively in different target based programs (Dihydroorotate dehydrogenase, Thioredoxin reductase, Falcipains, FabI and Cytbc1) and she has also been leading the biology of the TB-Malaria Chemical Proteomics Platform sponsored by Gates Foundation for target identification of compounds based on phenotypic screenings approaches. Currently, she is leading the *in vivo* therapeutic efficacy unit to support drug discovery programs, testing new antimalarials in the *P. Falciparum* humanized mouse model providing PK/PD data in order to estimate parameters of efficacy. She has also a relevant record of publications in specialized per-review journals.

Dr Paul Leeson is a medicinal chemistry consultant with >35 years' experience in major pharmaceutical companies: Smith Kline and French, Merck Sharp and Dohme, Wyeth (USA), AstraZeneca, and GlaxoSmithKline. Since 2014 he has advised pharmaceutical companies, start-ups, and academia. At AstraZeneca (1997-2011) Paul was head of medicinal chemistry at the Charnwood site and he led AstraZeneca's Global Chemistry Forum. Paul's drug discovery contributions have been in the cardiovascular, neuroscience, respiratory and inflammation therapy areas. He has a special interest in compound quality and in 2014 he received the Nauta Award from the European Federation of Medicinal Chemistry. Paul has a PhD from the University of Cambridge and holds an honorary professorship at the University of Nottingham.

Dr Didier Leroy leads the biology at Medicines for Malaria Venture (MMV) as well as drug discovery activities in the context of individual projects, miniportfolios of pharmaceutical companies and pharmacology platforms. Didier, a molecular pharmacologist/biologist, joined the MMV Drug Discovery Team in 2009 from Merck-Serono International, where he was managing a Team of 12 collaborators and several projects including Malaria in the Lead Discovery Department. He has broad experience in drug discovery and disease biology (infectious diseases, cancer, inflammation and neurological disorders). Before MMV and during seven years in Pharmaceutical companies and ten years in the academic field (laboratory established and led at the Geneva University), he worked on multiple aspects of a project: target characterization, impact of nuclear organization on gene expression, proteomics, lead identification and optimization, molecular/cellular and in vivo pharmacology, druggability evaluation and cellular biology/biochemistry. Didier has a PhD in Molecular Biology from the University J. Fourier of Grenoble in France and has more than 60 published scientific papers in various fields from enzymology and structural biology to parasitology.

Professor James McCarthy is a Senior Scientist at QIMR Berghofer Medical Research Institute, and an Infectious Diseases Physician at Royal Brisbane and Women's Hospital, both in Brisbane, Australia. His clinical and research training were undertaken in Australia, the United Kingdom, at the University of Maryland and the Laboratory for Parasitic Diseases, National Institutes of Health, Bethesda, MD, before returning to Australia in 1997. A major focus of his research is the development and application of clinical trial systems that entail deliberate infection of human volunteers with malaria parasites by intravenous injection of Plasmodium -infected red blood cells. Volunteers are then studied in the pre-symptomatic period by qPCR to evaluate investigational drugs, vaccines and diagnostics for malaria.

Dr Ujjini Manjunatha, is a Group Leader Cryptosporidiosis and Lead Discovery at Novartis Institute for Tropical Diseases (NITD) Emeryville, California. NITD is a small -molecule drug discovery research institute within the Novartis Institutes for BioMedical Research (NIBR). NITD works in collaboration with a number of academic and non-profit partners focussing on parasitic diseases. Dr. Manjunatha received his Ph.D. from the Indian Institute of Science, Bangalore in 2001. He was then awarded John E. Fogarty International Visiting Post-doctoral research fellowship to work at the National Institutes of Health, US, where he worked on the mechanism of action of Protomanid, a promising TB drug. He joined NITD Singapore in 2007, and since then has been working on drug discovery and development against various neglected tropical diseases like TB, dengue, malaria, trypanosomiasis, cryptosporidiosis etc. He has identified a couple of novel class of anti-TB candidates and are currently being pursued by TB Alliance. Recently, Manjunatha has led a multi-disciplinary team of scientists to identify a novel anti-Cryptosporidium candidate KDU731. KDU731 is a lipid kinase CpPI(4)K (phosphatidylinositol-4-OH kinase) inhibitor with promising in vitro / in vivo activities. NITD team is now focussing on understanding PK-PD relationship in cryptosporidiosis and identifying novel CpPI(4)K inhibitors. He has published more than 50 research articles in highly reputed international journals and has a number of patents to his credit.

Professor Valerie Mizrahi is director of the Institute of Infectious Disease and Molecular Medicine at the University of Cape Town. She also directs an extramural research unit of the South African MRC, co-directs of national centre of excellence in TB research, and was an International Research Scholar of the HHMI until 2017. She obtained her PhD in Chemistry from UCT and completed a postdoc with Stephen Benkovic at Penn State before returning to South Africa. Her research focuses on aspects of the physiology and metabolism of Mycobacterium tuberculosis of relevance to TB drug resistance, persistence and drug discovery. Valerie is a Fellow of the American Academy of Microbiology, African Academy of Science and Royal Society of South Africa; Associate Fellow of The World Academy of Science, and Member of the Academy of Science of South Africa. Her major awards include the 2000 Unesco-L'Oreal For Women in Science Award (Africa and the Middle East); 2013 Christophe Mérieux Prize from the Mérieux Foundation and Institut de France, and 2017 Platinum Medal from the SAMRC.

Professor Jacquin C. Niles MD, PhD is Associate Professor of Biological Engineering at MIT. Dr. Niles completed combined medical and graduate school training at Harvard University Medical School and the Massachusetts Institute of Technology. His graduate work focused on chemical characterization of DNA damage products induced by reactive oxygen and nitrogen species towards understanding how these modifications interact with DNA repair and replication mechanisms during carcinogenesis. As an NIH Postdoctoral Fellow at the University of California, Berkeley, he used RNA aptamers as intracellular perturbation tools for interrogating heme homeostasis in model systems and malarial parasites. He is now an Associate Professor at MIT in the Department of Biological Engineering, where his work emphasizes developing broadly enabling functional genetics technologies to achieve robust and facile genomic manipulations in *P. falciparum*. He uses these tools for both translational applications in antimalarial drug target identification and studying parasite biology.

Dr John Overington joined the Medicines Discovery Catapult as Chief Informatics Officer in April 2017 from technology company Benevolent AI, where he was involved in the development of novel data extraction and integration strategies, integrating deep learning and other Artificial Intelligence approaches to drug target validation and drug optimisation.

Prior to this, John worked for Inpharmatica, where he led the development of a series of computational and data platforms to improve drug discovery, including the medicinal chemistry database StARLite. In 2008 he was central to the transfer of this database to the EMBL-EBI, where the successor is now known as the ChEMBL. More recently, the work extended into large-scale patent informatics with the Open patent database SureChEMBL.

John, who has a degree in Chemistry from Bath and PhD from Birkbeck College, London, has also worked at Pfizer – first as a computational chemist and then leading a multidisciplinary group combining rational drug design with structural biology. He has also held a postdoctoral position at the Imperial Cancer Research Fund (now part of CRUK).

Dr John Pottage (Chief Scientific and Medical Officer) oversees R&D, Regulatory, Safety and Medical Affairs at ViiV Healthcare. He is the former SVP, Infectious Diseases Medicine Development Centre for GSK. He previously held senior positions at Vertex Pharmaceuticals and Achillion Pharmaceuticals, where he helped lead a successful IPO in 2006 and led the HIV and HCV development programmes. Before joining the pharmaceutical industry, John was Associate Professor of Internal Medicine in the Section of Infectious Diseases at Rush Medical College in Chicago. While at Rush, he was Director of the Outpatient HIV Centre. John is board certified in both Internal Medicine and Infectious Disease. He is the author of more than 50 peer-reviewed medical articles as well as the author of several chapters in Infectious Disease textbooks.

Dr Srinivasa Rao, is an investigator and biology lead in Kinetoplastid group at Novartis Institute for Tropical Diseases (NITD) Emeryville, California. He joined NITD in 2007, since then he has been working on drug discovery and development against various neglected bacterial and parasitic tropical diseases. He has led multiple target-based as well as phenotypic drug discovery campaigns leading multi-disciplinary team delivering pre-clinical candidates for human African Trypanosomiasis (HAT), Dengue and Tuberculosis (TB). He is molecular microbiologist by training and has contributed greatly in establishing HAT and TB cellular assays for HTS and for mechanism of action studies. This includes identification, validation of 20S proteasome as pan-kinetoplastid target and MMPL3 as viable target for TB. Prior to NITD, he completed his Ph.D in molecular microbiology from National University of Singapore in 2003, worked on enteric bacteria characterizing several pathogenic genes and identified novel secretion system (type six secretion system-T6SS). Later in May 2004, he joined NITD as a post doc identifying ATP homeostasis as the 'Achilles heel' of hypoxic non-replicating persistent Mycobacteria further developing. He has published over 40 research articles and a patent to his credit.

Dr Isabela Ribeiro is the Scientific Lead, Dynamic Portfolio Unit at Drugs for Neglected Diseases initiative (DNDi). Dr Ribeiro is a medical doctor with post-graduate training in infectious diseases and over 20 years of drug development experience focused on neglected tropical diseases. Working at DNDi since 2005 in projects on malaria, visceral and cutaneous leishmaniasis and Chagas disease, involved in the development and registration of two DNDi available products – artesunate-mefloquine fixed-dose combination and the paediatric dosage form of benznidazole.

As DNDi Head of Chagas Disease, the disease program and key partnerships were established, the Chagas clinical trial platform was launched and clinical development and regulatory strategies in Chagas were defined, leading to the implementation of several new proof-of concept clinical trials in adult and paediatric Chagas disease and new lines of investigation on biological markers of therapeutic response. An area of specific interest is the evaluation of alternative regimens of available treatments for Chagas disease, in both monotherapy and combination.

With WHO-TDR, contributed to several projects involving the management of large community-based clinical studies in endemic countries and drug regulatory trials for tuberculosis and malaria in resource-limited settings, in Asia, Africa and Latin America.

Dr Lynn Silver earned her PhD at Tufts University in Molecular Biology and Microbiology. After postdoctoral work at the University of Geneva and NIH, she joined Merck Research Laboratories in 1982, where she supervised groups in screening for new antibacterials in natural products and chemical collections and collaborated with chemists in improving older antibiotic classes to overcome resistance. Among other accomplishments, she was involved in the discovery of the earliest inhibitors of LpxC (Lipid A deacetylase), the novel antibiotic platensimycin, and participated in the development of ertapenem. Her expertise includes broad knowledge of antibacterial agents, screen design, evaluation of hits and leads, and studies of mechanism of action and resistance. After early retirement from Merck she established an independent consultancy in antibacterial discovery and continues to write on topics of antibacterial discovery and its discontents, including the highly cited “Challenges of Antibacterial Discovery”.

Dr Thomas Spangenberg is responsible for drug discovery activities within the Merck Global Health Institute focusing primarily on Malaria and Schistosomiasis.

Before joining Merck, Thomas worked with Medicines for Malaria Venture (MMV) in the discovery team on the early stages of the pipeline from compound screening to candidate selection. Also Thomas led the open source Malaria Box and Pathogen Box initiatives designed to catalyze drug discovery research in neglected diseases.

Thomas holds a PhD in organic chemistry from the Universities of Strasbourg (France) and Freiburg im Breisgau (Germany). In 2009, he was appointed as a Post-doctoral fellow at Harvard University (USA) where he contributed to the total synthesis of the mycolactones and the development towards the point-of-care diagnosis of Buruli ulcer, a neglected necrotizing skin disease. He authored and co-authored over 20-peer-reviewed articles and is a co-inventor on several patents.

Dr Jen Southern is an artist, lecturer in Fine Art and New Media, and Director of the Mobilities Lab at the Centre for Mobilities Research at Lancaster University. Her work is a hybrid of art practice, mobilities research and speculative software design, and has been exhibited internationally for over 25 years. With an ethos of shared authorship she collaborates with artists, technologists and members of the public to produce live installations that combine material and digital experience. Her current practice develops a mobilities framing of Baradian agential realism involving the co-production of relational landscapes. Unstable Landscapes (Slovenia, 2017) shared the mobile activity of filming with local people, animals, wind currents and footpaths.

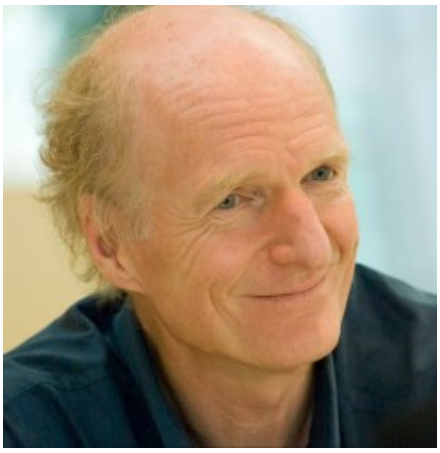
For over 25 years Southern has been working with mobilities within art practice including; walking on boardwalks (1991), and in parks (*Joyriding in the Land that Time Forgot* (1997-2000, UK, Switzerland, Canada, New Zealand), installations in shipping containers *Podunk* (UK, 1998), explorations in video game clothing (Roam, 2001 - 2003) and learning to fly a light aircraft (*Hold* 2002-4) and *Flight Plan* (2003). In 2016 her work with art and mobilities was the subject of a solo exhibition 'Skylines: A survey of work 2001-2016'.

Southern joined the Centre for Mobilities Research in 2008, where she did the first art practice based Phd in mobilities studies. As a passionate advocate for the contribution of art practice to mobilities research Southern curated exhibitions at conferences Global Mobility Futures (2013) and Mobile Utopia: Pasts, Presents, Futures (2018). As director of Mobilities Lab she creates opportunities for artists and academics through fellowships, PhD and post-doc supervision, and a series of workshops and events. Southern has presented art works and papers at PanAmerican mobilities network and Cosmobilities network conferences and has published on practice-based research (Canadian Journal of Communications, 2012), co-design (Technological Forecasting and Social Change, 2014) and sharing mobilities through locative media (Moving Sites: Investigating Site Specific Dance Performance, 2015).

Professor Shyam Sundar has worked continuously on the neglected disease kala-azar for three decades. He was the first person to describe the large scale pentavalent antimony failure in Bihar. He chose an extremely backward region of the country for his field work. He led the testing of the first oral drug miltefosine leading its approval in March 2002. This drug was used widely in the Indian Subcontinent in the Kala-azar Elimination programme (KAEP). Dr Sundar was also instrumental in clinical development of rapid k39 immunochromatographic test. With this test it is now possible to make the diagnosis of kala-azar with a drop of blood from a finger prick with reasonable accuracy. He also led the phase III clinical trial of paromomycin leading to its first approval for the treatment of visceral leishmaniasis. He demonstrated efficacy of a single dose liposomal amphotericin treatment which is now being used extensively in KAEP. He also demonstrated excellent efficacy of multi-drug therapy with antileishmanial drugs.

Professor Wesley C. Van Voorhis, MD, PhD is Professor of Medicine in the Division of Allergy and Infectious Diseases, and Adjunct Professor of Global Health and Microbiology, and Director of the Centrer for Emerging and Re-emerging Infectious Diseases (CERID), University of Washington.

Wes trained at MIT (undergraduate), Cornell Medical College and Rockefeller University for MD/PhD degrees, UC San Francisco for internal medicine and University of Washington (UW) for ID Fellowship. As a UW faculty member, Wes researches, practices medicine, teaches, and until 2017, led the Division of Allergy and Infectious Diseases at UW. Wes is the Director of the Center for Emerging and Re-emerging Infectious Diseases, which takes a multidisciplinary approach to identifying and developing diagnostic, therapeutic and vaccine solutions to emerging IDs. For the past 25 years, Wes works on pre-clinical drug development for malaria, trypanosomes, leishmania, and cryptosporidium. He works extensively in target-based drug development and, where possible, uses iterative structure-based drug development. Wes' lab is now characterizing a new preclinical drug candidate for the treatment of cryptosporidiosis. He is also the PI of a clinical trial to test the efficacy of clofazimine for cryptosporidiosis in Malawi.



Professor Sir Nicholas John White KCMG OBE DSc MD FRCP F Med Sci FRS is Professor of Tropical Medicine at the Faculty of Tropical Medicine, Mahidol University, Thailand and at Oxford University, UK. He is also a Consultant Physician in acute general medicine at the John Radcliffe Hospital, Oxford. Professor White is a Wellcome Trust Principal Research Fellow who chairs the Wellcome Trust Tropical Medicine Research Programmes in South East Asia. He trained in medicine in London at Guy's Hospital and he has lived and worked in Thailand since 1980. His research focus is the pathophysiology and treatment of malaria. He has concentrated on characterising antimalarial pharmacokinetic -pharmacodynamic relationships to improve the treatment of malaria and to reduce the emergence of resistance. This led to artemisinin based combination treatment for falciparum malaria, and the change to artesunate for the treatment of severe malaria. He has authored over 1000 scientific publications and 50 book chapters. He has received several awards including the Royal Society Glaxo SmithKline prize, the Prince Mahidol Prize for Medicine, the Canada Gairdner Foundation Global Health Prize, and the Royal Society of Tropical Medicine and Hygiene Manson medal. He is currently a member of the WHO antimalarial treatment guidelines committee and chairs the Scientific Advisory board of the Drugs for Neglected Diseases initiative.

Dr Susan Wyllie is an Independent Investigator in the School of Life Sciences, University of Dundee and leads the Wellcome Centre for Anti-Infectives Research Mode of Action group.

Dr Wyllie has more than 15 years of experience studying kinetoplastid biology. Specifically, her research has focused on determining the mechanisms of action and mechanisms of resistance of drugs targeting kinetoplastid parasites. Her contributions to the research of the Wellcome Centre for Anti-Infectives Research will include:

- Using complementary methodologies in the fields of genomics, chemical proteomics and cell biology to determine the modes of action and specific molecular targets of phenotypically-active compounds
- Developing new genetic and cell biology tools for the study of drug mechanism of action
- Functional characterisation of novel targets
- Developing novel cell-based assays to exploit high value drug targets

http://www.lifesci.dundee.ac.uk/research/events/wcair-conference-2019

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